# **National Guard Bureau Distance Learning Network**



# DUAL MULTI-MEDIA CLASSROOM CAPABILITIES SCENARIOS

# Prepared by:

Distance Learning Collaborative Technologies
1 October 1999

# **INSTALLATION SIGN-OFF FORM**

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	CLASSROOM		
Region:			
STARC:			
	Site POC		Telephone #
	INCRALL ATION	تقتت	
	INSTALLATION	TŁ	AM
	Team POC		Telephone #
	INSTALLATI	ON	
Start Date	C	lassr	room Status
	Open to Install		Installation Pending (Explain below)
End Date			room Status
	☐ Installation Completed		Installation Pending (Explain below)
	SIGN-OFF		
The classroom has been installed to support the network and multimedia capabilities specified in the <i>DLN Classroom Capabilities Scenarios</i> . The scenarios have been successfully performed to demonstrate that the distance learning network and multimedia capabilities are operational.			
	· -		
Date	NGB Representative		Signature
Date	EDS/DLCT Representative		Signature

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# DUAL MULTI-MEDIA CLASSROOM CAPABILITIES SCENARIOS

# I. CAC MULTIMEDIA CAPABILITIES

# A. Required Items

#### 1. Software

No.	Item
1	Sample MS Word file

#### 2. Other

No.	Item
1	Sample VHS tape to play on the VCR
2	Blank VHS tape to record on the VCR
3	Sample 8 ½ " x 11" document.
4	Blank 8 ½" x 11" sheets of paper
5	Classroom Printer/Copier/Fax number to test fax transmissions
6	User IDs to log on to the PCs
7	STARC router address
8	NOC telephone number to collaborate with for VTC
9	NOC fax number

#### **B.** Required Setup

#### 1. Preparation

Step	Action
1	Classroom is fully installed.
2	All equipment power is connected.
3	All devices at the Cabinet and Instructor's desk are powered on.
4	PHONE the NOC.
	INFORM them that all devices are connected and ready to be pinged.
	(The NOC will conduct an independent capabilities scenario. They will ping every network device in the classroom.)

#### 2. Log on to Crestron Touch Panel

Step	Action
1	TOUCH anywhere on the opening screen.
2	User Password screen will appear.
3	ENTER password.
4	The Main Menu will appear.

#### 3. Seat IR Probes

The IR probe must rest directly on top of the IR sensor of the equipment to enable remote control from the Touch Panel. The IR sensors are hard to locate; locating them will require the joint effort of two team members: one to work the controls at the Touch Panel, the other to locate the IR probe sensors at the devices. The following devices need their IR probes seated: the camera, 2 NetTVs, and the VCR (Cabinet).

NOTE: The IR probes may have already been seated during the installation.

#### a) Camera

At the Touch Panel perform the following:

Step	Action
1	From the Main Menu, PRESS the Multimedia Devices button.
2	The Multimedia Control screen will appear.
3	PRESS the Camera button.
4	The Camera Control screen will appear.
5	USE the pan-tilt-zoom controls to try to move the camera.

#### At the Camera perform the following:

Step	Action
1	TAPE the top of the IR probe with transparent tape.
2	<b>MOVE</b> the IR probe around the IR sensor panel until the camera responds to the Touch Panel control.
3	TAPE the IR probe securely to the device.

# b) NetTVs

At the Touch Panel perform the following:

Step	Action
1	PRESS the <i>Previous Menu</i> button.
2	The Multimedia Control screen will appear.
3	PRESS the TV button.
4	The TV Control screen will appear.
5	PRESS the TV Left button.
6	PRESS the TV channel controls until the TV responds.
	(NOTE: The Cabinet VCR will be registering the channel controls.)
7	REPEAT for the Right TV.

#### At the TVs perform the following:

Step	Action
1	TAPE the top of the IR probe with transparent tape.
2	<b>MOVE</b> the IR probe around the IR sensor panel until the TV responds to the Touch Panel control.
3	TAPE the IR probe securely to the device.
4	REPEAT for the Right TV.

### c) VCR

At the Touch Panel perform the following:

Step	Action
1	PRESS the <i>Previous Menu</i> button.
2	The Multimedia Control screen will appear.
3	PRESS the Cabinet VCR button.
4	The Cabinet VCR screen will appear.
5	INSERT a sample VHS tape in the VCR.
6	PRESS the forward (FWD) and rewind (REW) buttons until the VCR responds.
	(NOTE: The tape count on the VCR will increase and/or decrease in response to the controls.)

#### At the Cabinet VCR perform the following:

Step	Action
1	TAPE the top of the IR probe with transparent tape.
2	<b>MOVE</b> the IR probe around the IR sensor panel until the cabinet VCR responds to the Touch Panel control.
3	TAPE the IR probe securely to the device.

#### 4. Control Panel

Use the Touch Panel to test the basic functionality of the devices.

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# □□ a) Left TV

Step	Action
1	GO TO the Multimedia Devices screen.
2	PRESS the TV Select button.
3	The TV Control screen will appear.
4	PRESS the Left TV button.
5	<b>VERIFY</b> that all the left TV controls are operational.

#### CAC VTT

# b) Right TV

Step	Action
1	GO TO the Multimedia Devices screen.
2	PRESS the TV Select button.
3	The TV Control screen will appear.
4	PRESS the Right TV button.
5	VERIFY that all the Right TV controls are operational.

#### CAC VTT

### c) Camera

Step	Action	
1	GO TO the Audio/Video Mapper screen.	
2	MAP the Camera (source device) to the Left TV (destination device).	
3	The Camera video input will appear on the Left TV.	
4	PRESS the Main Menu button.	
5	PRESS the Multimedia Devices button.	
6	The Multimedia Control screen will appear.	
7	PRESS the Camera button.	
8	The Camera Control screen will appear.	
9	VERIFY that all the camera controls are operational.	

#### CAC VTT

# d) Push-to-Talk Microphones

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Step	Action
1	GO TO the Audio/Video Mapper screen.
2	<b>MAP</b> the Camera (source device) to the Left TV and to the Right TV (destination devices).
3	The Camera video input will appear on the TVs.
4	PRESS the button on the Push-to-Talk microphones, one at a time.
	<b>VERIFY</b> that the camera hones in on the activated microphone and returns to the "Room" position after the microphone is released.

CAC VTT

# e) Cabinet VCR

Step	Action
1	INSERT a sample VHS into the Cabinet VCR.
2	GO TO the Audio/Video Mapper screen.
3	MAP the Cabinet VCR (source device) to the Right TV (destination device).
4	The cabinet VCR output will appear on the Right TV.
5	PRESS the Multimedia Devices button.
6	The Multimedia Control screen will appear.
7	PRESS the Cabinet VCR button.
8	The Cabinet VCR screen will appear.
9	VERIFY that all the cabinet VCR controls are operational.

CAC VTT

# f) Instructor's VCR

Step	Action
1	INSERT a sample VHS into the Instructor's VCR.
2	GO TO the Audio/Video Mapper screen.
3	MAP the Instructor's VCR (source device) to the Right TV (destination device).
4	The instructor's VCR output will appear on the Right TV.
5	PRESS the Multimedia Devices button.
6	The Multimedia Control screen will appear.
7	PRESS the Instructor's VCR button.
8	The Instructor's VCR screen will appear.
9	VERIFY that all the cabinet VCR controls are operational.

CAC VTT

# g) Volume Control

Step	Action
1	GO TO the Audio/Video Mapper screen.
2	MAP the Satellite/VCR/CTV (source device) to the Left TV (destination device).
3	MAP the Satellite/VCR/CTV (source device) to the classroom Speakers (destination device).
4	If nothing appears on the left TV monitor, <b>USE</b> the TV control panel to channel the TV to a station.
5	VERIFY that the sound is coming from the classroom speakers.
	VERIFY that all volume control features are operational.

### 5. Instructor's Desk and/or Student PCs

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# \_\_\_\_\_ a) Log On

Step	Action		
1	POWER ON the PC		
2	After the PC is powered up, the network prompt should appear.		
	TYPE the user ID		
	TYPE the password		
	PRESS Enter		
3	<b>OBTAIN</b> the STARC router address to ping to the STARC router.		
	GO TO the MS/DOS prompt		
	TYPE: ping <starc address="" router=""></starc>		
4	CONFIRM that the PC can ping to the router		
	Ability to log on to the NT domain		
	Ability to ping to the STARC router		

# II. CAC Networking Capabilities

### A. Personal Computers

### 1. Perform Primary Functions on Instructor and Student PCs

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a) Execute Windows Applications			e windows Applications
		Step	Action
		1	STARTUP "Windows"
		2	EXECUTE "Windows Explorer"
		3 VERIFY "Windows Explorer" is operational	
		4	EXIT
		5	EXECUTE "PowerPoint"
		6	VERIFY "PowerPoint" is operational
		7	EXIT
		8	EXECUTE "MS Word"
		9	VERIFY "MS Word" is operational
			Ability to access and operate local PC applications and productivity tools, such as Windows Explorer, PowerPoint, and MS Word.
CAC VTT			

# \_\_\_\_\_ b) Print a File to the Network Printer

Step	Action
1	OPEN a sample "MS Word" file
2	PRINT the file to the network printer
3	CONFIRM that the document has successfully printed
	(Postscript printing is not available on this printer.)
4	EXIT
	Ability to print files from the PC to the network printer.

# C) Execute Netscape

Step	Action
1	RUN "Netscape Navigator"
2	In the Netsite field, TYPE:
	http://www.cnn.com
3	CONFIRM that the CNN home page is found
4	EXIT
	Ability to access the internet via Netscape.

# 2. Perform Net Meetings

CAC VII			
	a)	Instructor's	PC

Step	Action
1	EXECUTE "MS NetMeeting"
2	The instructor's PC will be the host.
	GO TO the Call menu.
	SELECT the Host Conference option.
	SELECT the Place Advanced Call option.
	SELECT TCP-IP option.
3	(See Step 2 of the Student PCs)
4	From the host PC,
	TYPE the IP address of the other PC.
	PRESS the Call button.
5	(See Step 3 of the Student PCs)
6	GO TO Tools menu.
	SELECT Chat.
7	GO TO Tools menu.
	SELECT Whiteboard.
8	WRITE/DRAW messages on the whiteboard
9	<b>CONFIRM</b> that the Instructor's PC workstation can see everyone's graphical input on the whiteboard.
	Ability to participate in a NetMeeting with video capabilities.
	Ability to view in real-time visual input from all participating PCs.

# CAC VTT

# b) Student PCs

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Step	Action	
1	<b>EXECUTE</b> "MS NetMeeting" on all PCs.	
2	DETERMINE the IP address:	
	RUN "WIN IP Configuration"	
3	(See Step 4 of the Instructor's PC)	
4	The Accept Call prompt will appear.	
	PRESS the Yes button.	
5	GO TO the Tools menu.	
	SELECT Chat.	
6	GO TO Tools menu.	
	SELECT Whiteboard.	
7	WRITE/DRAW messages on the whiteboard.	
8	CONFIRM that all the PC workstations can see everyone's graphical input on	
	the whiteboard.	
	Ability to participate in a NetMeeting with video capabilities.	
	Ability to view in real-time visual input from all participating PCs.	

### 3. Access V-Caster on the Instructor's and Student PCs

CAC

### a) V-Caster PC

Step	Action
1	GO TO the AB switch (at the instructor's desk),
	PRESS the Select button until Port 2 is activated.
2	EXECUTE V-Caster.
3	VERIFY the following settings:
	BIT Rate = 800000
	Video Input = Video 1
	Video Format = NTSC
	MPEG = 1
4	The numbers will increase. This will indicate that the V-Caster is running.
5	From the Touch Panel,
	MAP the Satellite to the V-Caster
	(GO TO the Video/Audio Mapper screen;
	SELECT Satellite from the Source options;
	SELECT V-Caster from the Destination options.)
	NOTE: If the classroom does not have a Satellite (RF) hookup, then from the
	Touch Panel map a VCR to the V-Caster. After the VCR is mapped,
	GO TO the VCR control panel and play a sample tape.
	Ability to operate and view the V-Caster PC input.

CAC VTT

# b) V-Player on the Instructor's PC and Student PCs

Step	Action
1	With the V-Caster mapped as above in step 5.
2	<b>EXECUTE</b> "National Guard Demo" on the desktop.
3	PRESS "Distant Learning via the Next Generation Internet"
4	PRESS "Live broadcast"
5	PRESS "Local"
6	CONFIRM that the VCR/Satellite video appears on the PC monitor.
7	MAP all of the other source devices to the V-Caster.
	CONFIRM that each source device video appears on the PC monitors.
	Ability to operate V-Player and access the V-Caster from the instructor's and student PCs.

#### 4. Access V-Cache

CAC

# a) V-Caster PC

Step	Action		
1	From the Touch Panel,		
	MAP the Satellite to the V-Caster		
	(GO TO the "Video/Audio Mapper" screen;		
	SELECT Satellite from the Source options;		
	SELECT "V-Caster" from the Destination options.)		
	NOTE: If the classroom does not have a Satellite (RF) hookup, then from the Touch Panel map a VCR to the V-Caster. After the VCR is mapped,		
	GO TO the VCR control panel and play a sample tape.		
2	<b>EXECUTE</b> V-Recorder (START/PROGRAMS/VCASTER2/Vrecorder).		
3	VERIFY the following settings:		
	BIT Rate = 800000		
	File = test2.mpg		
4	PRESS OK		
	PRESS Record		
	NOTE: Record for 30 seconds.		
	PRESS Stop		
	Ability to execute V-Recorder from the V-Caster PC to record to the V-Cache.		
	Ability to access (record to and play from) the V-Cache.		

CAC VTT

# b) Instructor's PC and Student PCs

Step	Action
1	EXECUTE "V-Player"
2	EXECUTE File/Open
3	On "Everything on Cxxxxxxxxx01" DOUBLE-CLICK "Test2"
4	CONFIRM that the recording was successful.
	Ability to execute V-Record from the instructor's and student PCs to record to the V-Cache.
	Ability to access (record to and play from) the V-Cache.

# 5. Modem Dial-Up

Performed on a student PC with an internal modem. (The classroom installs will have at least one student PC with a modem as an additional feature. These procedures need to be performed at only one of them.)

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# a) Student PC with Modem

Step	Action
1	GO TO Start/Programs/Accessories/HyperTerminal
2	DOUBLE-CLICK the "Hypertrm.exe" file
3	The Connection Description screen will appear
4	In the Name field, TYPE:
	Crestron
	PRESS the Return key
5	The Phone Number screen will appear
6	TYPE the following numbers in the corresponding fields:
	Country Code: 1
	Area Code: 201
	Phone Number: 767-5506
	PRESS the OK button
7	From the main screen, <b>GO TO</b> Call/Connect
8	Confirm that the PC has successfully connected to the Crestron Bulletin Board Service
	Ability to use the modem for dial-up connectivity.

#### B. Instructor's PC

# 1. Printer/Copier/Fax

CAC	
	a) Print to the Printer/copier/fax

Step	Action
1	EXECUTE "MS Word"
2	OPEN a sample file.
3	PRINT the file.
4	CONFIRM that the document has successfully printed to the Printer/Copier/Fax
	Ability to print a file from the instructor's PC to the printer/copier/fax machine.

# b) Produce paper copies of documents

Step	Action
1	<b>FEED</b> a sample 8 ½" x 11" document into the printer/copier/fax machine.
2	PRESS the Copy button.
3	CONFIRM that the machine has printed a copy of the document successfully.
	Ability to make copies from the printer/copier/fax machine.

# c) Send/Receive fax

Step	Action		
1	PHONE the NOC to inform them that a sample fax would be sent as part of the testing scenarios.  OBTAIN their fax number. NOC fax number:  REQUEST them to fax a test sample back. PROVIDE them with the		
	appropriate return fax number. Printer/Copier/Fax number:		
	NOC telephone number:		
2	FEED a sample 8 ½ " x 11" document into the machine.		
3	DIAL the NOC fax number.		
4	PRESS the "Send" button.		
5	<b>CONFIRM</b> that the fax has been successfully sent and a fax has been successfully received.		
	Ability to send and receive faxes from the printer/copier/fax machine.		

### 2. Video Teleconference

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# ☐☐☐ a) Point-to-Point On-Net

Step	Action
1	PHONE the NOC. Obtain the following:
	- Scheduled time to dial-up the NOC or DEMO classroom for a trial
	VTC - The On-Net DID and Arlington V-Gate ATM address
2	GO TO Start/Programs/Zydacron OnWAN/FVC MGS Client Status
	VERIFY that the "Enable Access to V-Gate" option is CHECKED
	From the "V-Gate Server" option, <b>SELECT</b> "VGate Arl"
3	Using the Touch Screen,
	GO TO the Audio/Video Mapper control screen
	MAP the "Camera" to the "Outgoing Video"
	MAP the "Instructor's PC" to the "Instructor's Monitor"
	MAP the "Incoming Conference" to the "Left TV monitor"
4	At the assigned dial-up time perform the following:
	From the Instructor's PC,
	GO TO Start/Programs/Video Teleconferencing"
	EXECUTE the "ON-WAN" application
	DIAL the NOC/DEMO classroom.
5	After a VTC connection is established,
	USE the Push-to-Talk microphones and CONFIRM that the video and audio
	transmissions are completely operational. (The NOC can hear and see the
	classroom, and vice versa.)
-	CONFIRM that the camera hones in on activated Push-to-Talk microphones.
6	ALLOW the NOC (remote site) to control the classroom camera.
7	CONFIRM that the NOC can successfully control the classroom camera.
7	From the Instructor's PC, use the ON-WAN program to control the NOC camera (remote site) by performing the following:
	From the ON-WAN application go the TOOLS/Camera Controller pull-down
	menu.
	The Camera Controller screen will appear.
	SELECT the "Far-End Camera" option.
	PRESS the FECC button.
	The green bar on the right of the button will flash until the connection is
	completed.
	USE the Pan/Zoom/Tilt controls to remotely control the NOC camera.
8	CONFIRM that the classroom Instructor can control the remote camera.

Step	Action		
9	<b>CONFIRM</b> that the video and audio transmissions are completely operational for the following:		
	PUT a sample document on the document camera.     From the Touch Screen MAP the "Document Camera" to the "Out-going Conference"		
	<ul> <li>From the Touch Screen, MAP the "Cabinet VCR" to the "Out-going Conference"</li> </ul>		
	<ul> <li>From the Touch Screen, MAP the "Instructor's VCR" to the "Out-going Conference"</li> </ul>		
	<ul> <li>From the Instructor's PC, MINIMIZE the ON-WAN application.</li> <li>EXECUTE PowerPoint</li> </ul>		
	MAP the "Instructor's PC" to the "Out-going Conference"		
	Ability for up to 4 students to participate in training sessions using Push-To-Talk microphones or a conferencing speaker phone		
	Ability to conduct a VTC with audio and video input from the camera and microphones, the document camera, the cabinet VCR, the instructor's VCR, and the instructor's PC.		
	Ability to control a remote site's camera from the classroom, and vice versa. (Ability for a remote site to control the classroom camera.)		

### CAC VTT

# b) Multi-Point On-Net

Step	Action
1	Using the Touch Screen,
	GO TO the Audio/Video Mapper control screen
	MAP the "Camera" to the "Outgoing Video"
	MAP the "Instructor's PC" to the "Instructor's Monitor"
	MAP the "Instructor's PC" to the Left or Right TV.
2	PHONE the NOC and schedule a time to dial-up the MCU in the NOC.
	OBTAIN the MCU number.
3	At the assigned dial-up time perform the following:
	From the Instructor's PC,
	GO TO "Start/Programs/Video Teleconferencing"
	EXECUTE the "ON-WAN" application
	DIAL the NOC's MCU.
4	After a VTC connection is established,
	USE the Push-to-Talk microphones and CONFIRM that the video and audio
	transmissions are completely operational. (The other connected VTC sessions can hear and see the classroom, and vice versa.)
	<b>CONFIRM</b> that the camera hones in on activated Push-to-Talk microphones.
	Ability to perform a VTC connection to a remote site's MCU.

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# a) Point-to-Point Off-Net

Step	Action	
1	<b>PHONE</b> the NOC. Obtain the following:	
	- Scheduled time to dial-up the NOC or DEMO classroom for a trial	
	VTC - The Off-Net ("live") DID and Arlington V-Gate ATM address	
2	GO TO Start/Programs/Zydacron OnWAN/FVC MGS Client Status	
	VERIFY that the "Enable Access to V-Gate" option is CHECKED	
	From the "V-Gate Server" option, <b>SELECT</b> the local V-Gate	
3	Using the Touch Screen,	
	GO TO the Audio/Video Mapper control screen	
	MAP the "Camera" to the "Outgoing Video"	
	MAP the "Instructor's PC" to the "Instructor's Monitor"	
	MAP the "Incoming Conference" to the "Left TV monitor"	
4	At the assigned dial-up time perform the following:	
	From the Instructor's PC,	
	GO TO Start/Programs/Video Teleconferencing	
	EXECUTE the "ON-WAN" application	
	DIAL the NOC/DEMO classroom.	
5	After a VTC connection is established,	
	USE the Push-to-Talk microphones and CONFIRM that the video and audio	
	transmissions are completely operational. (The NOC can hear and see the	
	classroom, and vice versa.)	
	<b>CONFIRM</b> that the camera hones in on activated Push-to-Talk microphones.	

#### C. General

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# 1. Polycom and Speaker Phone

NOTE: The speaker phone for the Push-to-Talk microphones and the Polycom will be connected to 2 different POTS lines.

Step	Action
1	USE the Polycom to call the NOC.
2	<b>COMMUNICATE</b> verbally back and forth, on the Polycom Omni-directional microphone.
3	VERIFY that two-way communication is operational.
	Ability to place phone calls.

### CAC VTT

# 2. Dual VCR Feature (Play Tape/Record VTC)

From the Instructor's VCR:

Step	Action		
1	INSERT a sample VHS tape into the Instructor's VCR.		
2	From the Touch Screen,		
	MAP the "Instructor's VCR" to "NET TV Right."		
	POWER ON the "Instructor's VCR."		
	PRESS the <i>Play</i> button.		
	CONFIRM that the VCR output is seen and heard on the NET TV Right monitor.		
	Ability to play a video tape presentation from the instructor's VCR and view it on a large screen monitor while simultaneously record the classroom camera input to the cabinet VCR.		

#### From the Cabinet VCR:

Step	Action		
1	INSERT a blank VHS tape into the Cabinet VCR.		
2	From the Touch Screen,		
	MAP the camera to the "Cabinet VCR"		
	PRESS the record button from the "Cabinet VCR" control panel.		
	After recording for several seconds, <b>PRESS</b> the <i>Stop</i> button.		
	PRESS the Rewind button.		
3	From the Touch Screen,		
	MAP the "Cabinet VCR" to the "NET TV Right" monitor.		
	PRESS the "PLAY" button from the Cabinet VCR control panel.		
4	CONFIRM that the Cabinet VCR has successfully recorded the video input of the		
	camera.		
	Ability to play a video tape presentation from the instructor's VCR and view it on a large screen monitor while simultaneously record the classroom camera input to the cabinet VCR.		

CAC VTI

#### 3. Camera

Step	Action
1	ASSIGN a Team member as the "instructor" to test the Track mode.
2	From the Touch Panel,
	MAP the Camera to the TV Left and/or Right.
3	PRESS the Autotrack (AT) On button.
4	PRESS the Frame Display button.
5	A white frame will appear on the TV monitor.
6	PRESS the Data Screen button.
7	A data screen will appear on the TV monitor.
8	PRESS the Chase button until the Chase mode is 3.
9	<b>USE</b> the pan-zoom-tilt controls to zoom in on the instructor's face.
10	When the resolution reaches at least 50, <b>PRESS</b> the <i>Start</i> button.
	The camera track mode has been set.
11	PRESS the Frame Display and Data Screen buttons.
	The frame and data screen will disappear from the TV monitor.
12	<b>CONFIRM</b> that the camera is tracking the instructor as the instructor moves around the room.
	Ability for the classroom camera to autotrack the instructor.

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# 4. Netblazer Backup Capability\*

\*This feature is supported only at remote-located classrooms. Therefore, the following procedures will apply only to remote-located classrooms. These procedures need to be performed at only one of student PCs.

Step	Action
1	GO TO Start/Programs/MS DOS Prompt
2	The Windows> prompt will appear
3	TYPE the following with the appropriate STARC router IP address:
	ping -t <132.xxx.127.193>
	PRESS the Return key
4	The following message should appear and continuously repeat:
	Reply from <ip address="">: bytes=32 time=2ms TTL=32</ip>
5	GO TO Start/Run
6	The "Run" screen will appear
7	In the "Open" field, TYPE: Telnet
8	The "Telnet" screen will appear
9	GO TO Connect/Remote System
10	The "Connect Window" screen will appear
	TYPE the STARC router IP address

Step	Action
11	The Router logon prompt will appear
	TYPE the login ID
	TYPE the login Password
12	The > prompt will appear
13	With the MS-DOS window and Telnet window still active,
	WALK to the classroom rack
	<b>DISCONNECT</b> the V.35 interface from the FVC switch
	WALK back to the PC
14	After the V.35 cable is disconnected, <b>CONFIRM</b> that the following message
	appears on the MS-DOS screen:
	Request timed out
15	From the classroom NetBlazer, <b>CONFIRM</b> that the Receive Data (RD) indicator is
	activated. It may take a moment for this connectivity.
16	After the NetBlazer RD indicator is lit, <b>GO TO</b> the Telnet window
	CLICK the mouse within the window
	PRESS the Return key twice
17	VIEW the MS-DOS window
	CONFIRM the following messages have reappeared:
	Reply from <ip address="">: bytes=32 time=2ms TTL=32</ip>
18	RECONNECT the V.35 cable
	From a remote-located classroom, ability for the Netblazer to provide back-up connectivity.

# I. VTT MULTIMEDIA CAPABILITIES

# A. Required Items

### 1. Software

No.	Item
1	Sample MS Word file

#### 2. Other

No.	Item
1	Sample VHS tape to play on the VCR
2	Blank VHS tape to record on the VCR
3	Sample 8 ½ " x 11" document.
4	Blank 8 1/2" x 11" sheets of paper
5	Classroom Printer/Copier/Fax number to test fax transmissions
6	User IDs to log on to the PCs
7	STARC router address
8	NOC telephone number to collaborate with for VTC
9	NOC fax number

#### **B.** Required Setup

### 1. Preparation

Step	Action
1	Classroom is fully installed.
2	All equipment power is connected.
3	All devices at the Cabinet and Instructor's desk are powered on.
4	PHONE the NOC.
	INFORM them that all devices are connected and ready to be pinged.
	(The NOC will conduct an independent capabilities scenario. They will ping every network device in the classroom.)

#### 2. Log on to Crestron Touch Panel

Step	Action
1	TOUCH anywhere on the opening screen.
2	User Password screen will appear.
3	ENTER password.
4	The Main Menu will appear.

#### 3. Seat IR Probes

The IR probe must rest directly on top of the IR sensor of the equipment to enable remote control from the Touch Panel. The IR sensors are hard to locate; locating them will require the joint effort of two team members: one to work the controls at the Touch Panel, the other to locate the IR probe sensors at the devices. The following devices need their IR probes seated: the camera, 2 NetTVs, and the VCR (Cabinet).

NOTE: The IR probes may have already been seated during the installation.

#### a) Camera

At the Touch Panel perform the following:

Step	Action
1	From the Main Menu, PRESS the Multimedia Devices button.
2	The Multimedia Control screen will appear.
3	PRESS the Camera button.
4	The Camera Control screen will appear.
5	USE the pan-tilt-zoom controls to try to move the camera.

#### At the Camera perform the following:

Step	Action
1	TAPE the top of the IR probe with transparent tape.
2	<b>MOVE</b> the IR probe around the IR sensor panel until the camera responds to the Touch Panel control.
3	TAPE the IR probe securely to the device.

# b) NetTVs

At the Touch Panel perform the following:

Step	Action
1	PRESS the <i>Previous Menu</i> button.
2	The Multimedia Control screen will appear.
3	PRESS the TV button.
4	The TV Control screen will appear.
5	PRESS the TV Left button.
6	PRESS the TV channel controls until the TV responds.
	(NOTE: The Cabinet VCR will be registering the channel controls.)
7	REPEAT for the Right TV.

#### At the TVs perform the following:

Step	Action
1	TAPE the top of the IR probe with transparent tape.
2	<b>MOVE</b> the IR probe around the IR sensor panel until the TV responds to the Touch Panel control.
3	TAPE the IR probe securely to the device.
4	REPEAT for the Right TV.

### c) VCR

At the Touch Panel perform the following:

Step	Action
1	PRESS the <i>Previous Menu</i> button.
2	The Multimedia Control screen will appear.
3	PRESS the Cabinet VCR button.
4	The Cabinet VCR screen will appear.
5	INSERT a sample VHS tape in the VCR.
6	PRESS the forward (FWD) and rewind (REW) buttons until the VCR responds.
	(NOTE: The tape count on the VCR will increase and/or decrease in response to the controls.)

#### At the Cabinet VCR perform the following:

Step	Action
1	TAPE the top of the IR probe with transparent tape.
2	<b>MOVE</b> the IR probe around the IR sensor panel until the cabinet VCR responds to the Touch Panel control.
3	TAPE the IR probe securely to the device.

#### 4. Control Panel

Use the Touch Panel to test the basic functionality of the devices.

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# \_\_\_\_ a) Left TV

Step	Action
1	GO TO the Multimedia Devices screen.
2	PRESS the TV Select button.
3	The TV Control screen will appear.
4	PRESS the Left TV button.
5	<b>VERIFY</b> that all the left TV controls are operational.

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# b) Right TV

Step	Action
1	GO TO the Multimedia Devices screen.
2	PRESS the TV Select button.
3	The TV Control screen will appear.
4	PRESS the Right TV button.
5	VERIFY that all the Right TV controls are operational.

#### CAC VTT

### c) Camera

Step	Action		
1	GO TO the Audio/Video Mapper screen.		
2	MAP the Camera (source device) to the Left TV (destination device).		
3	The Camera video input will appear on the Left TV.		
4	PRESS the Main Menu button.		
5	PRESS the Multimedia Devices button.		
6	The Multimedia Control screen will appear.		
7	PRESS the Camera button.		
8	The Camera Control screen will appear.		
9	VERIFY that all the camera controls are operational.		

#### CAC VTT

# d) Push-to-Talk Microphones

Step	Action
1	GO TO the Audio/Video Mapper screen.
2	<b>MAP</b> the Camera (source device) to the Left TV and to the Right TV (destination devices).
3	The Camera video input will appear on the TVs.
4	PRESS the button on the Push-to-Talk microphones, one at a time.
	<b>VERIFY</b> that the camera hones in on the activated microphone and returns to the "Room" position after the microphone is released.

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# e) Cabinet VCR

Step	Action
1	INSERT a sample VHS into the Cabinet VCR.
2	GO TO the Audio/Video Mapper screen.
3	MAP the Cabinet VCR (source device) to the Right TV (destination device).
4	The cabinet VCR output will appear on the Right TV.
5	PRESS the Multimedia Devices button.
6	The Multimedia Control screen will appear.
7	PRESS the Cabinet VCR button.
8	The Cabinet VCR screen will appear.
9	VERIFY that all the cabinet VCR controls are operational.

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# f) Instructor's VCR

Step	Action
1	<b>INSERT</b> a sample VHS into the Instructor's VCR.
2	GO TO the Audio/Video Mapper screen.
3	<b>MAP</b> the Instructor's VCR (source device) to the Right TV (destination device).
4	The instructor's VCR output will appear on the Right TV.
5	PRESS the Multimedia Devices button.
6	The Multimedia Control screen will appear.
7	PRESS the Instructor's VCR button.
8	The Instructor's VCR screen will appear.
9	<b>VERIFY</b> that all the cabinet VCR controls are operational.

CAC VTT

# g) Volume Control

Step	Action
1	GO TO the Audio/Video Mapper screen.
2	MAP the Satellite/VCR/CTV (source device) to the Left TV (destination device).
3	MAP the Satellite/VCR/CTV (source device) to the classroom Speakers (destination device).
4	If nothing appears on the left TV monitor, <b>USE</b> the TV control panel to channel the TV to a station.
5	VERIFY that the sound is coming from the classroom speakers.
	VERIFY that all volume control features are operational.

### 5. Instructor's Desk and/or Student PCs

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# \_\_\_\_\_ a) Log On

Step	Action	
1	POWER ON the PC	
2	After the PC is powered up, the network prompt should appear.	
	TYPE the user ID	
	TYPE the password	
	PRESS Enter	
3	OBTAIN the STARC router address to ping to the STARC router.	
	GO TO the MS/DOS prompt	
	TYPE: ping <starc address="" router=""></starc>	
4	CONFIRM that the PC can ping to the router	
	Ability to log on to the NT domain	
	Ability to ping to the STARC router	

# II. VTT Networking Capabilities

### A. Personal Computers

# 1. Perform Primary Functions on Instructor and Student PCs

CAC VTT	a)	Execut	e Windows Applications
		Step	Action
		1	STARTUP "Windows"
		2	EXECUTE "Windows Explorer"
		3	VERIFY "Windows Explorer" is operational
		4	EXIT
		5	EXECUTE "PowerPoint"
		6	VERIFY "PowerPoint" is operational
		7	EXIT
		8	EXECUTE "MS Word"
		9	VERIFY "MS Word" is operational
			Ability to access and operate local PC applications and productivity tools, such as Windows Explorer, PowerPoint, and MS Word.

# b) Print a File to the Network Printer

Step	Action	
1	OPEN a sample "MS Word" file	
2	PRINT the file to the network printer	
3	CONFIRM that the document has successfully printed	
	(Postscript printing is not available on this printer.)	
4	EXIT	
	Ability to print files from the PC to the network printer.	

# └─│└─│ c) Execute Netscape

Step	Action
1	RUN "Netscape Navigator"
2	In the Netsite field, TYPE:
	http://www.cnn.com
3	CONFIRM that the CNN home page is found
4	EXIT
_	Ability to access the internet via Netscape.

# 2. Perform Net Meetings

CAC VII			
	a)	Instructor's	PC

Step	Action		
1	EXECUTE "MS NetMeeting"		
2	The instructor's PC will be the host.		
	GO TO the Call menu.		
	SELECT the Host Conference option.		
	SELECT the Place Advanced Call option.		
	SELECT TCP-IP option.		
3	(See Step 2 of the Student PCs)		
4	From the host PC,		
	TYPE the IP address of the other PC.		
	PRESS the Call button.		
5	(See Step 3 of the Student PCs)		
6	GO TO Tools menu.		
	SELECT Chat.		
7	GO TO Tools menu.		
	SELECT Whiteboard.		
8	WRITE/DRAW messages on the whiteboard		
9	<b>CONFIRM</b> that the Instructor's PC workstation can see everyone's graphical input on the whiteboard.		
	Ability to participate in a NetMeeting with video capabilities.		
	Ability to view in real-time visual input from all participating PCs.		

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# b) Student PCs

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Step	Action		
1	<b>EXECUTE</b> "MS NetMeeting" on all PCs.		
2	<b>DETERMINE</b> the IP address:		
	RUN "WIN IP Configuration"		
3	(See Step 4 of the Instructor's PC)		
4	The Accept Call prompt will appear.		
	PRESS the Yes button.		
5	GO TO the Tools menu.		
	SELECT Chat.		
6	GO TO Tools menu.		
	SELECT Whiteboard.		
7	WRITE/DRAW messages on the whiteboard.		
8	CONFIRM that all the PC workstations can see everyone's graphical input on		
	the whiteboard.		
	Ability to participate in a NetMeeting with video capabilities.		
	Ability to view in real-time visual input from all participating PCs.		

#### **B.** Instructor's PC

### 1. Video Teleconference

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# ☐☐☐ a) Point-to-Point On-Net

Step	Action		
10	PHONE the NOC. Obtain the following:		
	- Scheduled time to dial-up the NOC or DEMO classroom for a trial		
	VTC - The On-Net DID and Arlington V-Gate ATM address		
11	GO TO Start/Programs/Zydacron OnWAN/FVC MGS Client Status		
	VERIFY that the "Enable Access to V-Gate" option is CHECKED		
	From the "V-Gate Server" option, <b>SELECT</b> "VGate Arl"		
12	Using the Touch Screen,		
	GO TO the Audio/Video Mapper control screen		
	MAP the "Camera" to the "Outgoing Video"		
	MAP the "Instructor's PC" to the "Instructor's Monitor"		
	MAP the "Incoming Conference" to the "Left TV monitor"		
13	At the assigned dial-up time perform the following:		
	From the Instructor's PC,		
	GO TO Start/Programs/Video Teleconferencing"		
	EXECUTE the "ON-WAN" application		
	DIAL the NOC/DEMO classroom.		
14			
	USE the Push-to-Talk microphones and CONFIRM that the video and audio		
	transmissions are completely operational. (The NOC can hear and see the classroom, and vice versa.)		
	<b>CONFIRM</b> that the camera hones in on activated Push-to-Talk microphones.		
15	ALLOW the NOC (remote site) to control the classroom camera.		
13	CONFIRM that the NOC can successfully control the classroom camera.		
16	From the Instructor's PC, use the ON-WAN program to control the NOC camera		
10	(remote site) by performing the following:		
	From the ON-WAN application go the TOOLS/Camera Controller pull-down		
	menu.		
	The Camera Controller screen will appear.		
	SELECT the "Far-End Camera" option.		
	PRESS the FECC button.		
	The green bar on the right of the button will flash until the connection is		
	completed.		
	USE the Pan/Zoom/Tilt controls to remotely control the NOC camera.		
17	CONFIRM that the classroom Instructor can control the remote camera.		

Step	Action			
18	<b>CONFIRM</b> that the video and audio transmissions are completely operational for the following:			
	PUT a sample document on the document camera.  From the Touch Screen MAP the "Document Camera" to the "Out-going Conference"			
	From the Touch Screen, MAP the "Cabinet VCR" to the "Out-going Conference"			
	From the Touch Screen, MAP the "Instructor's VCR" to the "Out-going Conference"			
	From the Instructor's PC, MINIMIZE the ON-WAN application.     EXECUTE PowerPoint			
	MAP the "Instructor's PC" to the "Out-going Conference"			
	Ability for up to 4 students to participate in training sessions using Push-To-Talk microphones or a conferencing speaker phone			
	Ability to conduct a VTC with audio and video input from the camera and microphones, the document camera, the cabinet VCR, the instructor's VCR, and the instructor's PC.  Ability to control a remote site's camera from the classroom, and vice versa. (Ability for a remote site to control the classroom camera.)			

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# b) Multi-Point On-Net

Step	Action		
1	Using the Touch Screen,		
	GO TO the Audio/Video Mapper control screen		
	MAP the "Camera" to the "Outgoing Video"		
	MAP the "Instructor's PC" to the "Instructor's Monitor"		
	MAP the "Instructor's PC" to the Left or Right TV.		
2	<b>PHONE</b> the NOC and schedule a time to dial-up the MCU in the NOC.		
	OBTAIN the MCU number.		
3	At the assigned dial-up time perform the following:		
	From the Instructor's PC,		
	GO TO "Start/Programs/Video Teleconferencing"		
	EXECUTE the "ON-WAN" application		
	DIAL the NOC's MCU.		
4	After a VTC connection is established,		
	USE the Push-to-Talk microphones and CONFIRM that the video and audio		
	transmissions are completely operational. (The other connected VTC sessions can hear and see the classroom, and vice versa.)		
	<b>CONFIRM</b> that the camera hones in on activated Push-to-Talk microphones.		
	Ability to perform a VTC connection to a remote site's MCU.		

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# a) Point-to-Point Off-Net

Step	Action			
6	PHONE the NOC. Obtain the following:			
	- Scheduled time to dial-up the NOC or DEMO classroom for a trial			
	VTC - The Off-Net ("live") DID and Arlington V-Gate ATM address			
7	GO TO Start/Programs/Zydacron OnWAN/FVC MGS Client Status			
	VERIFY that the "Enable Access to V-Gate" option is CHECKED			
	From the "V-Gate Server" option, <b>SELECT</b> the local V-Gate			
8	Using the Touch Screen,			
	GO TO the Audio/Video Mapper control screen			
	MAP the "Camera" to the "Outgoing Video"			
	MAP the "Instructor's PC" to the "Instructor's Monitor"			
	MAP the "Incoming Conference" to the "Left TV monitor"			
9	At the assigned dial-up time perform the following:			
	From the Instructor's PC,			
	GO TO Start/Programs/Video Teleconferencing			
	<b>EXECUTE</b> the "ON-WAN" application			
	DIAL the NOC/DEMO classroom.			
10	After a VTC connection is established,			
	USE the Push-to-Talk microphones and CONFIRM that the video and audio			
	transmissions are completely operational. (The NOC can hear and see the			
	classroom, and vice versa.)			
	<b>CONFIRM</b> that the camera hones in on activated Push-to-Talk microphones.			

#### C. General

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# 1. Polycom and Speaker Phone

NOTE: The speaker phone for the Push-to-Talk microphones and the Polycom will be connected to 2 different POTS lines.

Step	Action
1	USE the Polycom to call the NOC.
2	<b>COMMUNICATE</b> verbally back and forth, on the Polycom Omni-directional microphone.
3	VERIFY that two-way communication is operational.
	Ability to place phone calls.

# 2. Dual VCR Feature (Play Tape/Record VTC)

From the Instructor's VCR:

Step	Action
1	INSERT a sample VHS tape into the Instructor's VCR.
2	From the Touch Screen,
	MAP the "Instructor's VCR" to "NET TV Right."
	POWER ON the "Instructor's VCR."
	PRESS the <i>Play</i> button.
	CONFIRM that the VCR output is seen and heard on the NET TV Right monitor.
	Ability to play a video tape presentation from the instructor's VCR and view it on a large screen monitor while simultaneously record the classroom camera input to the cabinet VCR.

#### From the Cabinet VCR:

Step	Action
1	INSERT a blank VHS tape into the Cabinet VCR.
2	From the Touch Screen,
	MAP the camera to the "Cabinet VCR"
	PRESS the record button from the "Cabinet VCR" control panel.
	After recording for several seconds, <b>PRESS</b> the <i>Stop</i> button.
	PRESS the Rewind button.
3	From the Touch Screen,
	MAP the "Cabinet VCR" to the "NET TV Right" monitor.
	PRESS the "PLAY" button from the Cabinet VCR control panel.
4	CONFIRM that the Cabinet VCR has successfully recorded the video input of the
	camera.
	Ability to play a video tape presentation from the instructor's VCR and view it on a large screen monitor while simultaneously record the classroom camera input to the cabinet VCR.

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#### 3. Camera

Step	Action
1	ASSIGN a Team member as the "instructor" to test the Track mode.
2	From the Touch Panel,
	MAP the Camera to the TV Left and/or Right.
3	PRESS the Autotrack (AT) On button.
4	PRESS the Frame Display button.
5	A white frame will appear on the TV monitor.
6	PRESS the Data Screen button.
7	A data screen will appear on the TV monitor.
8	PRESS the Chase button until the Chase mode is 3.
9	<b>USE</b> the pan-zoom-tilt controls to zoom in on the instructor's face.
10	When the resolution reaches at least 50, <b>PRESS</b> the <i>Start</i> button.
	The camera track mode has been set.
11	PRESS the Frame Display and Data Screen buttons.
	The frame and data screen will disappear from the TV monitor.
12	<b>CONFIRM</b> that the camera is tracking the instructor as the instructor moves around the room.
	Ability for the classroom camera to autotrack the instructor.

# CAC VTT

# 4. Netblazer Backup Capability\*

\*This feature is supported only at remote-located classrooms. Therefore, the following procedures will apply only to remote-located classrooms. These procedures need to be performed at only one of student PCs.

Step	Action
1	GO TO Start/Programs/MS DOS Prompt
2	The Windows> prompt will appear
3	TYPE the following with the appropriate STARC router IP address:
	ping -t <132.xxx.127.193>
	PRESS the Return key
4	The following message should appear and continuously repeat:
	Reply from <ip address="">: bytes=32 time=2ms TTL=32</ip>
5	GO TO Start/Run
6	The "Run" screen will appear
7	In the "Open" field, TYPE: Telnet
8	The "Telnet" screen will appear
9	GO TO Connect/Remote System
10	The "Connect Window" screen will appear
	TYPE the STARC router IP address

Step	Action
11	The Router logon prompt will appear
	TYPE the login ID
	TYPE the login Password
12	The > prompt will appear
13	With the MS-DOS window and Telnet window still active,
	WALK to the classroom rack
	<b>DISCONNECT</b> the V.35 interface from the FVC switch
	WALK back to the PC
14	After the V.35 cable is disconnected, <b>CONFIRM</b> that the following message
	appears on the MS-DOS screen:
	Request timed out
15	From the classroom NetBlazer, <b>CONFIRM</b> that the Receive Data (RD) indicator is
	activated. It may take a moment for this connectivity.
16	After the NetBlazer RD indicator is lit, <b>GO TO</b> the Telnet window
	CLICK the mouse within the window
	PRESS the Return key twice
17	VIEW the MS-DOS window
	CONFIRM the following messages have reappeared:
	Reply from <ip address="">: bytes=32 time=2ms TTL=32</ip>
18	RECONNECT the V.35 cable
	From a remote-located classroom, ability for the Netblazer to provide back-up connectivity.